the system. The project database shall hold all the configuration information for the system, including keypad programming, area scenes, occupancy programming, emergency levels, night lights, and timeclock.

o. Lighting management system software shall be Lutron Q-Admin or approved equal.

2.7 SWITCHES

2.7.1 Toggle Switches

Provide toggle switches as specified in Section 26 20 00 INTERIOR DISTRIBUTION SYSTEM.

2.7.2 Low Voltage Keypads

Low voltage keypads shall be provided in conference rooms and auditoriums as indicated on drawings. Low voltage keypads shall not be connected to the light management system but shall have the following salient features:

a. Astronomical time clock and programmer interface.

b. Provide ability to communicate by means of RS232 serial communication by means of user-supplied PC or digital audiovisual equipment. Control to be located within 50 feet of RS232 source.

c. Ability to control zones of luminaries via low voltage 3-wire controlled ballasts.

d. Ability to preset and recall scene lighting levels.

e. Fade zone to a preset lighting level.

f. Fine-tuning of preset lighting levels with scene raise/lower.

g. Lock out scenes and zones.

h. Fine-tuning of lighting levels with individual zone raise/lower.

i. Enable/disable wall station.

j. Low Voltage wall stations shall be Lutron Grafik Eye QS or approved equal.

2.7.3 Low Voltage ~~1~~ 2 Button Wall Station Switch

A single Low Voltage ~~1~~ 2 Button Wall Station Switch shall be provided on the both the Basement level and Main level of the Operations Building. These switches shall be enclosed in a key locked enclosure. Each low voltage switch shall be connected to the lighting management system, be compatible with all lighting management system components and shall have the following salient features:

a. Class 2 (low voltage).

b. Integral 1R receiver for personal control.

c. Immediate local LED response upon button activation to indicate that a system command has been requested.

d. Ability to be replaced without reprogramming.

e. One button control to toggle on/off and master raise/lower control for fixtures connected to the lighting management system located on the entire floor.

Second button shall bring lights to pre-programmed lighting level.

2

f. ~~1~~ Button Low Voltage Wall Station Switch shall be Lutron EcoSystem ~~1B CC-1BRL-WH~~ or approved equal.

QSWS2-2BRLIR

2.8 LIGHTING CONTACTOR

NEMA ICS 2, mechanically held contactor. Contacts shall be rated 277 volts; amperes and number of poles as indicated on drawings. Coils shall be rated 277volts. Provide in NEMA 1 enclosure conforming to NEMA ICS 6. Contactor shall have silver alloy double-break contacts and coil clearing contacts for mechanically held contactor. Provide contactor with hand-off-automatic selector switch.

2.9 PHOTOCELL SWITCH

UL 773 or UL 773A, hermetically sealed cadmium-sulfide or silicon diode type cell rated 277 VAC, 60 Hz with single pole double-throw (SPDT) contacts for control of mechanically held contactors, rated 1000 W. Switch shall turn on at or below 3 footcandles and off at 2 to 10 footcandles. A time delay shall prevent accidental switching from transient light sources. Provide a directional lens in front of the cell to prevent fixed light sources from creating a turnoff condition. Provide switch:

a. In a U.V. stabilized polycarbonate housing with swivel arm and adjustable window slide, rated 1800 VA, minimum.

b. In a high-impact-resistant, noncorroding and nonconductive molded plastic housing with a locking-type receptacle conforming to ANSI C136.10, rated 1800 VA, minimum.

c. In a cast weatherproof aluminum housing with adjustable window slide, rated 1800 VA, minimum.

2.10 EXIT SIGNS

UL 924, NFPA 70, and NFPA 101. Exit signs shall be remote-powered type. Exit signs shall use no more than 5 watts.

2.10.1 Remote-Powered Exit Signs

Provide remote ac exit signs with provisions for wiring to external ac power sources. Provide signs with LED ac lamps for normal and emergency illumination.

2.11 LIFE SAFETY CENTRAL LIGHTING SYSTEMS

A separate life safety central lighting system shall be provided at the Chiller Plant, Power Plant, and Operations Building. Each life safety central lighting system shall be 480 volt, 3-phase, 3-wire, 60 Hz, ac input and supply emergency power output at 480/277 volts, 3-phase, 4-wire, 60 Hz ac for a minimum period of 90 minutes.